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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/847,272	05/02/2001	Lorinda L. Yoder	1-13722	6921
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MACMILLAN SOBANSKI & TODD, LLC ONE MARITIME PLAZA FOURTH FLOOR 720 WATER STREET TOLEDO, OH 43604-1619				
			EXAMINER LEE, SHUN K	
			ART UNIT 2878	PAPER NUMBER

DATE MAILED: 01/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/847,272	Applicant(s) YODER, LORINDA L.	
	Examiner Shun Lee	Art Unit 2878	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings were received on 2 October 2003. These drawings are acceptable.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-12 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. It should be noted that newly added claim limitations must be supported in the specification through express, implicit, or inherent disclosure (MPEP § 2162). Independent claim 1 has been amended to include the newly added limitation "directly" and independent claim 7 has been amended to include the newly added limitation "direct" which was not described in the specification. Further, the absence of elements in the drawing does not explicitly support the necessity of their absence. Therefore, the newly added claim limitations fail to be supported in the specification through express, implicit, or inherent disclosure.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 2, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schrader *et al.* (US 5,459,313).

In regard to claims 1, 2, and 7, Schrader *et al.* disclose (column 1, lines 8-22; Fig.) a container surface defect detection system and method comprising:

- (a) a source (12) of ultraviolet radiation (column 7, lines 41-51);
- (b) a plastic container (7; column 6, lines 43-49) having a surface and a longitudinal axis (column 5, lines 12-19);
- (c) means (*i.e.*, transport unit 1 comprising a conveyor 4) for directing said container (7) along a path (on a conveyor 4) through the radiation, such that the ultraviolet radiation is directed from the source to the container surface (column 3, lines 33-42);
- (d) detecting means (CCD detector 28) for receiving and sensing a portion of the ultraviolet radiation reflected (column 3, lines 33-42) from the surface of said plastic container (7), and being responsive to generate a signal representing a defect in the surface of the container (*i.e.*, condition of the tested surface; column 3, lines 49-54, column 7, lines 6-11); and

(e) a computer means (3) connected to said detecting means (28) and being responsive to the generated signal for calculating a defect value, comparing the defect value with stored standards (*i.e.*, at least one reference signal; column 3, line 55 to column 5, line 6), and indicating one of acceptance and rejection (*i.e.*, classifying step can include classifying the containers as acceptable and unacceptable containers; column 3, line 55 to column 5, line 6, column 5, line 54 to column 6, line 3) for said plastic container (7).

While Schrader *et al.* also disclose (column 7, lines 52-57; Fig.) a preferred embodiment comprising directing ultraviolet radiation (21) from the source (12) to the surface of the container (7) using a mirror (13) having a deflection function, a filter (14) having a filtering function, and lenses (16) having a focusing function, the system and method of Schrader *et al.* lacks an explicit description of directing ultraviolet radiation directly from the source to the surface of the container. However, a reference may be relied upon for all that it would have reasonably suggested to one having ordinary skill the art, including nonpreferred embodiments (see MPEP § 2123). In addition, omission of an element and its function is obvious if the function of the element is not desired (see MPEP § 2144.04). Schrader *et al.* state (column 3, line 33 to column 6, line 11) that “ ... The improved method comprises the steps of directing a beam of optical radiation upon a surface of a container to be tested ... The beam of optical radiation is preferably focussed upon a portion of the internal surface of the container to be tested ... The radiation is preferably monochromatic radiation ... The method can further comprise the step of transporting a series of successive containers along a predetermined path (e.g.,

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along an endless circular path), and the directing step of such method can include directing the beam of optical radiation upon the surfaces of successive containers in a predetermined portion of the path ... ". Thus suggesting non preferred embodiments wherein the mirror (13), the filter (14), and lenses (16) are omitted when a deflection function, a filtering function, and a focusing function are not desirable. Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to omit the mirror, the filter, and lenses in the system and method of Schrader *et al.* when a deflection function, a filtering function, and a focusing function are not desired.

6. Claims 3-6 and 8-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schrader *et al.* (US 5,459,313) in view of Gomibuchi (US 5,305,391), McGrath (US 6,169,318), and Windham *et al.* (US 6,587,575).

In regard to claims **3-6** (which are dependent on claim 1) and claims **8-12** (which are dependent on claim 7), the system and method of Schrader *et al.* lacks a computer monitor for displaying an inspection result generated by the computer means which performs algorithms for determining the scope of a defect and wherein the detecting means for sensing the portion of the radiation comprises at least one vision system which is a camera having a minimum window size of 480 pixels by 480 pixels.

Gomibuchi teaches (column 1, line 63 to column 2, line 39, column 3, lines 32-65, column 4, lines 4-9) to provide at least one vision system which is a charge coupled device (CCD) camera, a controller (for analyzing with algorithms the scope of a defect), and a monitor, in order to detect, process, and display defects with a high degree of

accuracy. Further, CCD cameras are well known in the art. For example, McGrath teaches (column 1, lines 13-46) that commonly used moderate resolution CCD cameras comprise 512 rows and 768 columns. As another example, Windham *et al.* teach (column 11, lines 1-7) that high resolution CCD cameras are commercially available. Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to provide a high resolution (e.g., a minimum window size of 480 pixels by 480 pixels) CCD camera and a computer monitor in the system and method of Schrader *et al.*, in order to detect, analyze, and display defects with a high degree of accuracy as taught by Gomibuchi.

Response to Arguments

7. Applicant's arguments with respect to the amended claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shun Lee whose telephone number is (703) 308-4860. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Porta can be reached on (703) 308-4852. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

SL


DAVID PORTA
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